

**ATTACHMENT B
NNMC MASTER PLAN
PARKING ANALYSIS ASSUMPTIONS**

Parking at NNMCM

Parking Regulations and Guidance

Parking needs are determined primarily by the DoD using formulas found in the various design manuals of the UNIFIED FACILITIES CRITERIA (UFC) series. These documents identify the space allowance for most facilities at military installations. This ensures a uniformity of both requirements and amenities. The UFCs are the primary sources of guidance used by the military in preparing construction and renovation plans.

In accordance with Chapter 949, Public Act No. 592, The National Capital Planning Commission (NCPC) is the central planning agency for the Federal agencies in the National Capital Region (NCR). All development policies, plans and programs are to be reviewed and commented upon or approved by the Commission. The Commission fulfills its mission through three principal functions of comprehensive planning, oversight of the Federal capital improvements, and review of Federal construction projects. The Commission sets long-range policies and goals for future Federal development, historic preservation, environmental protection and economic development of the NCR. Also, it reviews and comments on policies, plans and programs prepared by local, state, sub-regional and regional agencies in the NCR. These procedures foster intergovernmental cooperation in the NCR by identifying the types of plans to be reviewed; the Federal and non-Federal agencies to whom the plans are circulated; and the process the Commission follows to consult with the agencies.

One of the goals set by NCPC is to discourage the use of single occupancy vehicles (SOVs) for staff commuting to work. The goal is tied to the availability and proximity of mass transportation to the work site. One policy used is to restrict the availability of parking at the work site to discourage SOVs. To help achieve this, the policy sets a goal of restricting parking to one space per every 3 workers if the work site is outside Washington D.C. NNMCM supports and will meet the goal in 2011. Due to its current geographical distribution of employees, their relative economic status in comparison to the very affluent surrounding neighborhood, and high turnover rate it is a goal that will require significant effort to maintain. In addition, the influx of personnel from Walter Reed Army Medical Center (WRAMC) in 2011 is likely to make it more difficult to maintain the ratio since the new personnel will be changing their commuting patterns and possibly their schedules. Since WRAMC is not located near a Metrorail station personnel did not seek homes close to Metro stations. For many of those that do live near Metrorail the trip is long and expensive due to the need to go to a central station, transfer trains and then continue the commute to NNMCM. In addition, few buses make the east-west trip needed for many of the potential employees.

The purpose of this appendix is to demonstrate how NNMCM determined its parking requirements and to show how the NCPC goal of 1 space per 3 staff members will be met by 2011.

NNMCM is very large, relative to most Washington area federal facilities. Indeed, NNMCM is essentially a small town within a city. NNMCM has its own residential housing, hotels, child care facilities, shopping center, food services, police, fire, hospital, University, utilities system,

and recreational facilities. Many of these functions have parking needs that are not related to staff parking and are not covered by the 1:3 parking ratio that will apply to NNMC staff.

The NCPC Staff parking ratio is applied relative to the closest Metro access point (a single small elevator) rather than a more distant escalator. See Figure 1 to see a map of NNMC with circles of various distances being shown for scale. For the purposes of parking calculations, facilities inside and outside the 2,000 foot circle are given the 1:3 ratio as a staff parking goal, this includes the hospital as well as USUHS, AFRRI, and several support and administrative buildings which are well outside the 2,000 foot circle which is the agreed upon upper walking distance people will take before changing transportation modes. This mirrors what we have observed as USUHS and AFRRI employees have a much lower percentage of transit subsidy use. These tenants are effectively a separate campus; most are not assigned to NNMC but are assigned to the tenants which are largely DoD and not Navy commands. Earlier shuttle service was not sufficient or intended to provide employee access to the Metro Station; it was intended to assist patients to get to their destination on base. Improvements to the shuttle schedules, routes and hours of operation have significantly improved the viability of the shuttles for patients, staff, and visitors to reach their destinations.

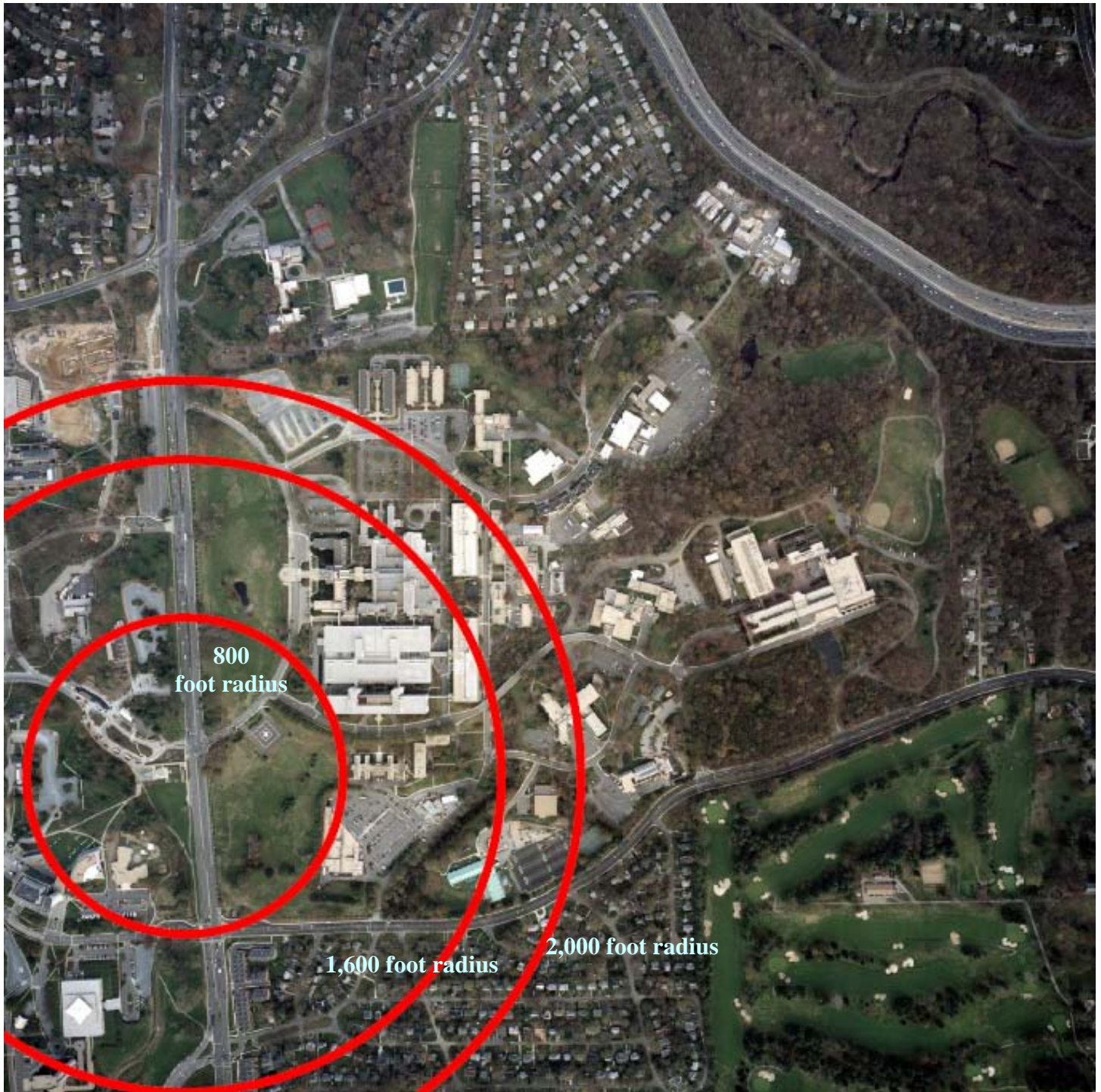


Figure 1 NNMC Aerial Picture Showing Distances from Medical Center Metrorail Station

Montgomery County does not regulate the Medical Center but they do comment on the actions being undertaken at NNMC. NNMC attempts to be a good neighbor by trying to follow the rules and regulations that would apply to similar facilities in Montgomery County and responding to Montgomery County's concerns. Thus, NNMC looks at Montgomery County's building codes, for the southern area, to help establish height and density limits and set "boundaries" on our actions. Comments from Montgomery County and the local neighbors on the subject of parking are often contradictory. Some comments seek to eliminate on base parking to reduce road congestion in the area. Others wish to ensure that we have excessive parking so that the neighbors are not impacted by staff parking in their neighborhoods and walking to NNMC.

PARKING CATEGORIES

Parking is needed not just for staff and business visitors (e.g., medical related, repairmen, consultants), but is also required for patients and patient visitors. Furthermore, personnel living at NNMC require different amounts and types of parking accommodations. Moreover, staff and visitors use various commercial and recreational facilities on-base and these facilities need to be able to accommodate the demand. These include permanent and temporary lodging, shopping, food service, fitness center, and a number of other items. In addition, there are a number of special vehicle circumstances that require various accommodations. For example, government vehicles such as ambulances, police, repair and maintenance vehicles, snow removal vehicles and motor pool vehicles need to have spaces assigned. Finally, certain types of employees are "entitled" to special accommodation due to special requirements.

1. Patient
2. Staff
3. Permanent Lodgers
4. MWR and NEX Visitors
 - Navy Lodge and Fisher Houses
 - Navy Exchange, NEX Gas Station, McDonalds, Package Store
 - Fitness Center/Pool, Bowling Center, and Ball Fields, Tennis Courts, and Pavilions
5. Special Accommodations
6. Shift Workers

Parking Needs by Category

Patient Parking

As patient care is our primary mission, provision of adequate parking in proximity of their clinical areas for patients and visitors is a major concern. Patients must be able to quickly and efficiently find available parking then navigate their way through the hospital, with as direct a route as to their clinic destination. This section of the trip is considered part of the patient or visitors experience and impacts their perception of the facility. Timely or inefficient routes or lack of available parking can cause delays in appointments, rescheduled appointments and undue stress resulting in a negative customer experience. Studies have shown that a patient's health outcome is influenced by stress during arrival and while attempting to find parking, stress caused when visitors have difficulty accomplishing these objectives quickly and efficiently.

NNMC currently has a patient parking garage, but patients can park essentially anywhere per the current Parking Instruction. However, staff cannot park in designated patient parking areas. The UFCs and Montgomery County give guidance to this issue while NCPC does not. This section is broken down into the various categories and subcategories of parking demand and determination of those allowances.

The DoD standard for determining parking to support a military medical center or hospital is UFC 4-510-01 (MIL HNDBK 1191) of May 2007. The UFC formula provides:

$$\text{Number of Spaces} = (.75 * X_1) + (.4 * X_2) + (X_3) + (X_4) + (X_5)$$

X_1 = # of all personnel working at the medical treatment facility on a full-time basis

X_2 = Average daily outpatient workload

X_3 = One space for every in-patient bed

Another term can be added to account for the Dental Treatment that occurs at NNMC.

X_4 = Dental Clinic (both free-standing and as a part of another facility (CMFT). Three (3) spaces provided per dental treatment room.

X_5 = Government Vehicles

It is possible to estimate the number of spaces for patients using just the terms X_2 and X_3 . Staff parking would be based on the term X_1 .

It is not possible to separate the staff and patient component for the dental rooms. The dental staff is subtracted from the overall staff to avoid duplication. There are 86 dental rooms and this will expand to 98 rooms.

Montgomery County has the following calculation:

Hospital. One parking space for each 1,000 square feet of total floor area, plus one space for each resident doctor, plus adequate reserved space for visiting staff doctors, plus one space for each 3 employees on the major shift.

Montgomery County uses a 1:3 ratio as the minimum amount of parking for the Hospital staff, while staff resident doctors are each given a space and so are visiting doctors. Resident

doctors are addressed later in the Special Accommodations section. In addition, staff and visitors are able to use the parking based on the size of the hospital. The area for the hospital, buildings 1 through 10, is approximately 2,474,428 square feet. Future additions are Building A at 533,000 sq. ft., building B at 157,000 sq. ft. and the NICoE facility at 80,000 sq. ft.

OFFICE SPACE

NNMC has several tenants that occupy administrative spaces in the area of the hospital. In addition, some NNMC missions are beyond what would be normal for a typical hospital resulting in far larger numbers of administrative staff in some departments than would be normal as they are managing for many clinics as well as maintaining military health records and consulting world-wide. The Transportation Manager should investigate what was used to determine the UFC and apply the office space criteria to those functions that fall outside of the norm. No attempt was made to conduct this analysis at this time. As virtually all functions of the tenants are inherently medical related it was not felt that this would make much difference at this time.

USUHS and AFRRI are large tenants heavily engaged in education and research. There is not a UFC document that describes research and education facilities. For these complexes the UFC and zoning used is for administrative office space. The NCPC derived numbers are for staff at a 1:3 ratio even though USUHS and AFRRI are essentially a separate campus over 2,000 feet from a Metro Station.

For calculation purposes UFC 3-610-01N ADMINISTRATIVE FACILITIES provides 0.7 spaces per employee.

Montgomery County uses the following: Office, general office, and professional buildings or similar uses. Parking shall be provided in accordance with the parking requirements for office developments contained in Section 59-E-3.2. (2.4 spaces per 1,000 gross sq. ft. for businesses more than 1,600 feet from Metrorail in the southern area). The base requirements may be reduced in accordance with the credit provision of Section 59-E-3.3. The calculation of building square footage is based on the sum of the gross areas of the several floors of the building, measured from the exterior faces to the exterior walls or from the center line of party walls, which area shall include cellars or basements but shall not include floor area used for off-street parking.

These buildings have an area of 1,159, 680 sq. ft.

Table 1 - Parking Demand for USUHS & AFRRI

UFC parking spaces	Montgomery Co. parking spaces	NCPC parking spaces
2,450	2,782	1,167

LODGING

There are five single family houses intended for Flag officers and three single family town homes for senior non-commissioned officers. The master plan talks about the possible building of a sixth Flag Officer Quarter. Parking for the single family homes has not been included in the discussion of parking.

Lodging is also provided for military personnel (permanent basis and visiting) in the barracks. The Bethesda community commented that it desired to have additional on-base housing to help eliminate some of the traffic congestion.

BACHELOR ENLISTED QUARTERS

Buildings 60, 61 are barracks primarily occupied by staff. A percentage of the rooms are set aside for visitors and recovering patients. Building 50 is intended for recovering patients, some of which will be assigned to NNMC and given light duties. A three hundred (307) unit new bachelor enlisted quarters (BEQ) is to be constructed adjacent to the existing bachelor enlisted quarters. UFC 4-721-10 31 July 2002 provides that parking shall be provided for 70% of the personnel in the barracks plus an additional 2% for visitors. This is appropriate for the staff personnel. However, visitors and patients should have one space per bed as this is not their duty station.

Table 2 - Bachelor Enlisted Quarters

BARRACKS	ROOMS	# OF PATIENTS OR VISITORS	# OF STAFF	PARKING SPACE REQUIREMENT
Building 60	176	88	88	151
Building 61	224	56	168	177
Building 50	99	99	0	99
New Barracks	307	80	227	243
Total Current	499	243	256	427
Total Future	806	323	483	671

Some portion of the personnel that will occupy the new BEQ will be staff and are included in the medical center calculation above. In addition, these staff members count as walkers to work and will be counted as part of the staff not commuting by SOV. However, they will be subtracted from the staff parking requirements number when calculating that value as they already have parking accounted for. Medical Hold occupants are not staff but are instead in some stage of outpatient treatment or medical evaluation. Note that there are currently more personnel in these quarters than is shown due to double occupancy of most rooms. The numbers shown are a goal that is desired. Double occupancy of staff rooms may occur during surge periods.

There are no NCPC guidelines for living quarters of this type. Montgomery County requires one space per room which is more generous than the UFC guidance. The military's numbers for this category are lower than Montgomery Counties zoning code.

MWR and NEX visitors

1. Navy Lodge – One space per room. Not included in staff available parking.
2. Fisher Houses – One space per room. Not included in staff available parking.
3. Quik-Mart/NEX Gas Station - Three spaces, 10 minute limit. Not included in staff available parking.
4. Navy Exchange lot – Lot is provided for NEX or McDonald's parking, Visitor parking, and Barracks parking. Parking required for lodging is not included in staff available parking. The parking instruction does not allow staff parking in this lot, other than very limited NEX staff parking.
 - Some staff (limited by permit, is for primarily NEX staff).
 - Visitors. Lot roped off prior to opening to keep out staff. Patrolling is done.
 - Dedicated permit parking for barracks (building 50 which has none close by).
5. Package Store – This store location and its parking is being eliminated under BRAC, location of store to be determined. If it is not co-located with the NEX this will need to be addressed.
6. Fitness Center/Gym – There is currently adequate parking in this area. The current Fitness Center is scheduled for demolition and replacement. UFC criteria will be used for this facility. UFC assumes a significant number of personnel are able to get to the Fitness Center without needing to drive and parking is set at 1 percent of military strength.
7. Bowling Center- Small lot for patrons only. Well enforced. Not included in staff available parking.
8. Ball Fields and Pavilions –
 - Spaces along Perimeter Road are not counted as staff lots. These are small remote lots intended for users of the recreational facilities.
 - Graveled parking by “home plate” on Stone Lake Road is counted as parking for staff.
9. Tennis courts – No parking is identified for the tennis courts.
10. Uniform store – In hospital, not a destination location.
11. MWR tickets and travel - In hospital, not a destination location.
12. Barber shop - In hospital, not a destination location
13. Subway/ice cream/Dunkin Donuts - In hospital, not a destination location.
14. William the V - In hospital, not a destination location.
15. Starbucks - In hospital, not a destination location.
16. Main Street food court - In hospital, not a destination location

Navy Lodge

The Navy Lodge is an on-base 106 room hotel that is fully occupied year around. Parking is provided in the lot in front of the facility which it shares with the Fisher Houses and the Senior Non-Commissioned Officers quarters. In addition, there is a large parking lot that wraps around south and west side of the facility. The Master Plan has allowed for up to a 200 room expansion of the facility. No additional parking is provided for in the Master Plan but any parking lost by the expansion would be replaced by a westward expansion of the parking lot.

NNMC's calculation is that parking is required based on 1 space per room.

Montgomery County provides the following zoning requirement.

If located within a central business district or a transit station development area, one-half space for each guest room, plus 10 spaces for each 1,000 square feet of gross floor area used for ballrooms, private meeting rooms, dining areas, and similar places of assembly. For other locations seven-tenths of a space for each guest room, plus 10 spaces for each 1,000 gross square feet of area used for ballrooms, private meeting rooms, dining rooms and similar places of assembly. (The Navy Lodge is not located in a central business district nor is it in a transit station development area.)

Table 3 - Navy Lodge

	No. of rooms	Navy (UFC) requirement	Montgomery County requirement
Current rooms	106	106 spaces	74
Future rooms	306	306 spaces	214

Fisher Houses

Fisher houses are set up similarly to a single family house or a group home. There are bedrooms some of which interconnect to accommodate multiple family members. They share a common living, dining, and kitchen area. These homes provide lodging for family members that are visiting an inpatient for an extended period of time. NNMC currently has two homes with a total of 15 guest rooms. While there is no UFC standard since these are not military buildings, parking is provided at 1 space per room. Future expansion calls for the addition of 3-21 room homes. This would create a need for 78 parking spaces.

Montgomery County zoning would call this an individual living unit within personal living quarters (PLQ). With a requirement of one space for each individual living unit, provided that parking for any complete dwelling unit in a personal living quarters building must comply with the standards for a dwelling, multiple-family, as required in this section.

Table 4 - Fisher Houses

	No. of rooms	Navy requirement	Montgomery County requirement
Current rooms	15	15 spaces	15
Future rooms	78	78 spaces	78

RETAIL AND COMMERCIAL

RETAIL, GENERAL.

The military provides retail activities to the military, their families, and retired military families. These facilities provide goods and services and "profits" are used to help enhance the morale, welfare, and recreational opportunities of the service members. NNMC has a Navy Exchange which is like a department store, a Package Store (liquor store), a Quik Mart/NEX Gas station, and a McDonalds that are outside the hospital buildings. There are numerous eating, shopping, and other activities inside the hospital but they are considered normal hospital functions and are evaluated as if they are part of the hospital.

Montgomery County's zoning ordinance states, "Commercial establishments devoted to retail sales, merchandising or other similar use, except furniture stores, 5 parking spaces for each 1,000 gross leasable square feet. In accordance with the exception provision of Section 59-E-5.8 all storage space that exceeds 35 percent of the total gross leasable area shall be excluded in calculating the number of required parking spaces." There is no comparable UFC; however, the standard that is used by the NEX is the same as Montgomery County's. The NEX has indicated that because their sales per square foot are higher than comparable retail facilities in the County, the parking need is well demonstrated.

The Navy Exchange's lot – "C" Lot is provided for NEX and McDonald's parking. The lot is 286 spaces, but 6 are set aside for government vehicles parking and for 58 for Building 50 residents parking leaving 222 spaces, an additional 36 spaces will be lost to accommodate the BRAC changes for the NICOE building. This lot should not be included in staff available parking as the lot is roped off until opening of the NEX to keep out staff. Future plans call for the demolition of the building and building a 150,000 square foot store. Parking would be provided by a parking garage of 550 spaces that replaces the existing 286 space surface parking lot.

Quik-Mart/NEX Gas Station – Three spaces with a 10 minute time limit are provided for the Quik-Mart. The McDonalds parking is included with the Navy Exchanges lot. These spaces should not be included in staff available parking. No changes are anticipated, however, if the garage is built about 12 surface spaces would likely remain associated with the drive up window and short term parking at the Quik-Mart

Package Store – Current parking is limited to 6 dedicated parking spots for the store. The package store location is being eliminated under BRAC. The future location of the store has not been determined. This function will not be lost and the same sized store is assumed for planning purposes. This issue needs to be addressed in detail in the future if the Package Store is not co-located with the Navy Exchange.

Table 5 - Retail Facilities

Location	Area (sq. ft.)	Navy requirement (spaces)	Montgomery County Requirement (spaces)	Existing and assumed parking conditions
Existing Conditions				
Navy Exchange	59,570	298	298	238
Quik-Mart/NEX Gas Station	10,450	52	52	In above
Package Store	3,296	17	17	7
Total	73,316	367	367	245
Future Conditions				
Navy Exchange	150,000	750	750	550
Quik-Mart/NEX Gas Station	10,450	52	52	12
Package Store	3,296	17	17	In NEX Garage above
Total	163,746	819	819	562

FITNESS CENTER

A major concern for the military is the physical readiness of the military personnel and to a lesser extent the physical well being of the military families and staff. Having a Fitness Center is considered to be mission critical. The Fitness Center at NNMCMC is an old structure dating to the 1940s. The facility was not built to meet modern codes and it is inadequate in size and amenities for the current demands. As part of the BRAC action a replacement Fitness Center is being planned. Parking at the current Fitness Center is not dedicated to the Fitness Center except for some delivery spaces. Parking at the future Fitness Center will be on surface parking near the building or at the location of the third parking garage, if it is constructed.

UFC 2-000-05N, Table 85210-1 indicates that parking for a gymnasium shall be equal to 1% of the military strength on-base. As previously stated, the manning document for WRNMCMC has yet to be developed but base population in post-BRAC is estimated to be approximately 10,500 personnel. Assuming that the existing ratio of military to civilian is maintained, approximately 50 spaces would be required for users. In addition, staff would receive spaces at the 1:1.5 ratio. Current demand would be 40 spaces.

Montgomery County provides the following parking requirement for a recreational establishment, commercial, other than a theater, auditorium or stadium. Twelve and five-tenths parking spaces for each 1,000 square feet of floor area, except as to racquetball, squash, and handball courts. As to racquetball, squash, and handball courts there shall be 3 ½ parking spaces per racquetball, squash, or handball court. This would be exclusive of the pool. The pool gets 2 spaces per lane.

The existing fitness center is approximately 42,000 sq. ft. with about one half being the pool. The pool has 5 lanes.

The new fitness center has not been fully laid out. However, the total area is 98,000 sq. ft. Assuming 1/2 is pool and 2 racquetball courts leaves 32,000 sq. ft. This would be 400 spaces plus 7 for the racquet ball courts and 12 for the pool (assumed 6 lanes in 50 meter pool) for a total of 419 spaces.

Table 6 - Fitness Center Parking Demand

Facility	UFC	Montgomery Co.	
		Sq. ft, # lanes, #courts	Parking space demand
Existing	40	21000, 5, 0	273
Future	50	32000, 6, 2	419

In addition, the Fitness Center will see considerable use by patients in various stages of rehabilitation and will have an Integrated Cardiac Health Program (ICHP). The majority of the rehabilitation will be for outpatients that will come primarily for access to the Fitness Center. This need has been projected to require of 150 patient parking spaces. As this number could not be properly estimated at this time no provision for patient parking shows up in the tables or the estimates. This will be changed when operational information is collected.

BOWLING CENTER

Per UFC 4-740-01NF 2-2 Parking requirements will vary with the local conditions at each specific installation, including the prevalence of privately owned vehicles, convenience of the Center to pedestrian access, and proximity to other parking areas. Commercial Bowling Centers typically allow a minimum of four parking spaces per lane. No specific guidance was found in Montgomery County zoning ordinances.

NNMC's bowling center has 20 lanes; UFC guidance shows commercial facility would have 80 spaces. NNMC has 16 spaces.

UNIFORMED SERVICES UNIVERSITY OF THE HEALTH SCIENCES

The School of Medicine has a year-round, four-year curriculum. This curriculum is nearly 700 hours longer than found at other U.S. medical schools. These extra hours focus on epidemiology, health promotion, disease prevention, tropical medicine, leadership and field exercises, and other subjects that relate to the unique requirements of career-oriented military physicians. Doctoral and masters degrees in the biomedical sciences and public health are awarded by interdisciplinary and department-based graduate programs within the School of Medicine. Program strengths include infectious disease, neuroscience, psychology and preventive medicine research. A large number of graduates are military officers and/or serve the federal biomedical research enterprise.

NNMC intends to treat this tenant as "staff" for business purposes (1:3). NNMC believes that parking at the University is appropriate. The 1,188 spaces in the garage are always full and many personnel park in more remote lots. Stone Lake Road (east) has 28 spaces, the nursing building has 33 spaces, and there are 32 by building 74. These total 1,281 parking spaces. The

distance to Metro is unappealing for many, close to a mile, and increasing ridership may be difficult. Carpools and vanpools may prove to be the most effective alternative mode of transportation.

Under Montgomery County zoning guidelines this would be:

Educational institution, private. One parking space for each employee, including teachers and administrators, plus sufficient off-street parking space for the safe and convenient loading and unloading of students, plus additional facilities for all students parking.

This would be approximately 3,500 parking spots.

CHILD DAY CARE FACILITY

NNMC currently has a child development center (day care) that is capable of handling up to 280 children. It is currently operating below capacity. Future growth is funded for additional child care services. This will include both hourly drop off so parents can see the doctor without taking all children into the examination room and an overnight stay quarters. As details are still in development it is assumed the numbers will double. In addition, the CDC is expected to expand to 280 children and 80 employees. The CDC has 22 reserved spaces divided equally between employees and visitors.

Child Development Center - UFC 4-740-14 provides the following guidance:

- 3-5.4.3 Visitor Parking. Provide a minimum number of parking spaces for visitors at the rate of one parking space for each 12 children cared for by the facility.
- 3-5.4.4 Staff Parking. Separate long-term staff parking from parent/visitor parking. However, locate both parent/visitor and staff parking near the building with a view to the entry. Provide parking spaces for the maximum number of staff on duty at one time.

Montgomery County's requirements are: For a family day care home or group day care home, one space for every non-resident staff member in addition to the residential parking requirement. The required number of spaces may be allowed on the street abutting the site. For a child day care center, one space for every non-resident staff member in addition to the residential parking requirement if applicable and adequate parking for discharge and pick up of children. In this instance, the average drop off and pick up space required is one space for every six children.

Table 7 - Child Development Center

		UFC spaces	Montgomery County - spaces
# of children	200	17	33
# of employees	50	50	50
Current requirement		67	88
# of children	468	39	78
# of employees	130	130	130
Future requirement		169	208

There are eleven visitor parking spaces. The eleven reserved employee spaces are counted as staff spaces.

SPECIAL ACCOMMODATIONS:

1. Senior leadership spaces indicated are part of the staff spaces not in addition.
 - a. NNMC (hospital) CO, XO, SNCO, Directors =15 spaces
 - b. JTF - CO, XO = 2 spaces
 - c. AFRRI - CO, XO = 2 spaces
 - d. USUHS - CO, XO = 2 spaces
 - e. Bloodbank - CO, XO = 2 spaces
2. Residents – Medical accreditation, a mission critical item, requires adequate parking for residents. Counted as staff parking, residents will receive a higher proportion of spots.
3. Carpools and Vanpools – Treated as staff parking spots.
4. Handicap – Any handicapped person can park in any handicapped spot of their choosing. Assume that visitors park in Visitor handicapped parking and Staff park in staff handicapped parking.
5. Government vehicles and EMCOR (maintenance contractor on-site vehicles). All such vehicles get one spot and government spaces are not counted as staff available parking.
6. Mission Critical Contractor Support – Contractors performing mission critical services that require the use of a vehicle for delivery of parts, carrying tools or replacement parts. The majority would be repairing or maintaining equipment under warranty or that require specialized training or diagnostic equipment.
7. Volunteers – For now we are treating them as staff members. If we notice a drop off in volunteers we will reexamine this policy. The cost savings and benefits for the patients and service members are substantial.
8. Lay down area and event parking
9. Warehouses – Limited parking, area is not authorized for general staff.

Senior Leadership

The Senior leaders at NNMC and the major tenant organizations are given reserved spaces. These total 23 spaces. The Transportation Manager shall ensure that additional reserved spaces for VIPs do not appear without being authorized as they remove spaces from being available to the general population. These spaces are not in addition to spaces provided in any formula.

Resident Doctors

The Accreditation Council for Graduate Medical Education requires adequate parking for residents. Having this accreditation is a mission critical item. We have 252 residents and will expand to 749 after 2011. NNMC has received two warnings that the hospital can lose accreditation if residents are not provided "adequate" parking by the time of the next inspection. NNMC proposes to provide 0.80 spaces per resident to meet the goal. This would be subject to change depending on the inspector's view of "adequate". Note that Montgomery County's zoning requires one space per resident.

NNMC believes that the resident doctors should be treated separately from the staff population and be treated as a distinct category as meeting this mission critical requirement imposes a severe reduction in staff parking if they are counted as staff. In addition, resident doctors do not work under the same conditions as normal staff members. For current calculations, these requirements were not included but NNMC may pursue adding these requirements in the future. The TMP manager will monitor usage of the lot(s) to determine if it is under or over utilized and that information will be provided for review by the Command and the accrediting team.

Carpools

Carpools are treated as staff parking spots, and are provided choice parking in the staff parking garage. Other preferred spots may be furnished based on requests from the carpoolers. With future growth the spots will become even more attractive. The Transportation Manager should evaluate the number of spaces available and the demand to adjust accordingly.

Handicapped parking

Any handicapped person can park in any handicapped spot of their choosing. The Transportation Manager should assume that visitors park in Visitor parking and Staff park in staff parking. The Transportation Manager shall monitor the number of handicapped spots in each lot and adjust them if the demand is greater than capacity. The ADA standards for numbers of handicapped spots must be adhered to as a minimum. In addition, whenever any existing lot is to be restriped the location, accessibility, number and size of the handicapped spots must be verified prior to the restriping. Many current "handicapped" spots do not meet ADA requirements because the lot is too steep, the curb cuts are not adequate, or the spaces are standard width for a regular space. It is anticipated that many existing spaces will be lost to accommodate all ADA compliant spaces.

Government Vehicles plus full time maintenance, facility service, and snow removal vehicles

All such vehicles get one spot and government spaces are counted separately from staff parking. Vehicles that are not used on a regular basis (e.g., extra ambulances, bucket trucks, motor pool vehicles beyond the typical daily draw) should be located at remote sites. The increase in vehicles due to the BRAC action is being debated with Army personnel expecting much larger increases in the motor pool than is the Navy. The current government vehicle count is 65 vehicles with another 27 vehicles permanently kept at NNMCM belonging to contractors for a total of 92 vehicles. Future government vehicles are estimated to increase by 40 vehicles with no growth in contractor support vehicles for a total of 132 vehicles.

Mission Critical Contractor Support

Contractors performing mission critical services that require the use of a vehicle for delivery of parts, supplies, samples, carrying tools or replacement parts. The majority would be repairing or maintaining equipment under warranty or that require specialized training or diagnostic equipment. Forty (40) spaces are identified as being needed for these contractors.

Volunteers

At this time volunteers are being counted as staff members, however, the Command believes that the unpaid volunteers are vital to ensuring good outcomes for many of the patients. In addition, many of the volunteers are formerly wounded personnel that are donating their time to reassuring wounded warriors that they can recover from devastating wounds and lead a happy fulfilling life. Many of these disdain using handicapped spots. The Command is requesting and will provide 0.75 spaces per volunteer present to accommodate their needs. The spaces will be taken from staff parking places. If NNMCM notices a drop in volunteers, and surveys indicate that volunteers were lost due to inadequate parking, then we will reexamine this policy. The cost savings and benefits from the approximately 200 volunteers for the patients and service members are substantial.

Shift Workers

Shift workers arrive and depart so that there is a demand for the leaving shift and the next shift to both have spaces at the same time. We receive many complaints about lack of parking by the afternoon shift. Ideally we would subtract the smallest shift from the employee total. However, shift workers have one or both ends of their shift in hours that are generally not well served by public transportation and getting a carpool organized in off hours is very difficult. Shift workers were accounted for in the UFC calculation and it is assumed they were included in the Montgomery County zoning requirement. However, we took shift work into consideration Table 8 Shift workers at NNMCM shows the number of shift workers at NNMCM and the number on the major shift (late afternoon to early morning). Therefore, the number of shift workers was subtracted from the total staff number and the number of shift workers on the largest shift was added back in because there is competition for spaces between two shifts. The disparity between the large shift and the second shift is primarily due to commercial type services remaining open in the evening and closing down at late evening. In addition, there is more medical delivery and support (e.g., food for dinner, custodial) provided in the evenings than in the early morning.

Table 8
Shift workers at NNMC

Group	Personnel on shifts	largest shift	2 nd	3 rd
Medical	288	235	235	53
Fire, security, utility	81	47	47	29
Commercial/retail/barracks	60	40	40	20
Total	429	322	322	102

Lay down areas and Event Parking

NNMC and its tenants always have several construction or renovation jobs open at any given time. Each of these jobs requires areas set aside to stage equipment and to operate the site. Due to issues with storm water and the desire to avoid impacting the natural environment these sites are usually on parking lots and green areas around buildings. Often it is necessary to completely block roads, thereby cutting off access to some parking areas. Ultimately, this displaces staff parking to other lots.

NNMC and its tenants frequently have large events that bring in significant numbers of visitors. Examples of this are graduations, change of command ceremonies, kickoffs for new projects or commands, groundbreaking ceremonies, emergency drills, training events and VIP visits. Events range from 50 to 500+ people. Invitations should continue to include information on available mass transportation. Reducing outpatient visits or rescheduling must occasionally be employed for some events but it is something the Command is very reluctant to do. The Command has requested that as many events as possible be scheduled for after 1500 hours when parking demand starts to drop. Table 9 Special Events shows three recent months of events. The table shows the frequency and size of many of the events.

Security at certain times requires the closure of certain roads and parking lots, redirecting commuters to other available lots. These circumstances occur due to repair or installation of a road, lot, or utilities underneath them, or for special training events.

Roofs of the parking garages often become very hazardous during inclement winter weather and for safety reasons the roofs are often closed to parking.

Existing parking structures are fairly old and are subject to the concrete spalling and dropping onto people and cars. Parts of floors or several floors are often shut down to allow repairs to be made.

These events and conditions are frequent and often unpredictable creating a need for contingency parking areas. Work in patient care areas is very demanding and utility outages must be minimized. This creates the need to have a very rapid provision of such space. Lay down areas are required which are used for extended periods of time. Our estimate is that during normal operations there are 5 individual projects taking place using at least 20 spaces each as a laydown or work area for a demand of at least 100 spaces. Due to anticipated growth the need will be for 7 or 8 laydown areas.

For the purposes of parking calculations these requirements were not included but NNMC may pursue adding these requirements in the future.

Table 9
Special Events

Date of Event	Event Name	# of Spaces Requested	# of Spaces Provided	Location
6/20/2008	National Capital Area Joint Service Graduation Ceremony	330	300	Lot G
6/20/2008	Retirement	10	10	Bldg 55 (Patient Garage)
6/23/2008	2008 Symposium	4	4	Bldg 55 (Patient Garage) - Flag Officer
6/27/2008	Retirement Ceremony	5	5	Bldg 54 (Staff Garage) - "F" Lot reserved
6/27/2008	Groundbreaking	5	5	Bldg 55 (Patient Garage) - Flag/DV
7/2/2008	Rehearsal for WRNMMC Groundbreaking	15	15	Bldg 54 (staff garage) - Level 2, next to the elevators
7/3/2008	WRNMMC Groundbreaking	650+ Attendees	434	A number of locations
7/9/2008	Retirement Ceremony	10	10	Please use 10 spaces, Level 2, bldg 54, "B" Lot.
7/10/2008	Drug Testing	2	2	Reserve two spaces for CDR X for drug testing @ 10AM in Lot S (Comfort Zone)
7/14/2008	MDOT Meeting	8	8	Top Level of the Patient Garage (Bldg 55)
7/18/2008	Retirement Ceremony - Change of Command	150-175 (10 of which are VIP's)		Bldg 55 (patient garage) for high level VIP's (10) - Ramp down into the basement, 1st 10 spaces on the rear wall; 3 spaces reserved for 15 person passenger vans in front of bldg 11; 130 general parking in "G" Lot - Walked with MAJ X

Date of Event	Event Name	# of Spaces Requested	# of Spaces Provided	Location
7/18/2008	Unknown	1	1	Bldg 54 (staff garage) - entrance on the ground level, turn left, down 14 spaces, 1st space open beyond NCA reserved parking for ADM X; 0800-1300; We need to provide sign to MAJ X for reserved designation
7/18/2008	Retired Four Star Flag Officers Wives'	3	3	Bldg 55 (patient garage) - 1 reserved space in Flag/DV Parking; 2 reserved spaces on the 2nd deck closest to the bldg 10 skyway (far southern side); Reserve the curb-cut in at bldg 8 for the entire time for pickup
7/29/2008	MWR Barracks Bash	8	8	"G" Lot (east side of G lot which is a cutout of spaces right next to the g lot sign facing Solace Hall, bldg 61 which is also closest to the fire hydrant/fire zone cul-de-sac)
8/7/2008	Defense Health Board Conference - NCR & BRAC	6	6	Bldg 55 - Flag/DV Spaces
8/14/2008	Retirement	15	15	Requested bldg 55 (place cones in spaces #23-37 in the 1st lower level of bldg 55)
8/25/2008	Change of Command	Bldg 55 for all (VIP's - 781people)	142	3 spots on the outer loop at bldg 10-ADML X; Bldg 55, 50 VIP's to the left at the entry; Bldg 55, 80 Guests spaces reserved on the two levels up after the entry level; the entire curb cut-in just south of the security parking lot (west of bldg 2/7)- The Band

Date of Event	Event Name	# of Spaces Requested	# of Spaces Provided	Location
8/28/2008	Unknown	3	3	Bldg 55 (patient garage) - Entry Level
8/29/2008	Retirement Ceremony	22	22	"G" Lot, 20 spaces; 2 spaces for VIP's in Flag/DV
9/2/2008	Promotion Ceremony	10	10	Bldg 55 (patient garage) - Entry Level
9/3/2008	Unknown	3	3	Bldg 55 (patient garage) - Entry Level
9/4/2008	MD DoT Meeting	6	6	Bldg 55 (patient garage); 1 level down on left hand side
9/10/2008	Retirement Ceremony	10	10	1 Flag/DV in Bldg 55; 9 in "G" Lot
9/12/2008	Retirement Ceremony	12	12	"G" lot
9/16/2008	Ceremony	70		"G", "E" or Staff Garage

No additional parking has been requested for these items at the present time. Such needs will come out of staff parking.

WAREHOUSES

Warehouses are normally not occupied full time and space is needed for employees to take vehicles to the warehouse and inspect, inventory, retrieve, or store products or equipment. NNMC has many warehouses and they function in the described manner. While NNMC has many warehouses those in the northeast section of the facility have a central parking area and loading dock areas with no parking spaces. The current parking in this area is used primarily by the blood bank which receives, tests, and ships large quantities of blood products (located in building 241). The remainder of the parking is used by the grounds keeping crew, who uses one warehouse, and by the NEX vending personnel. This entire area is limited to authorized personnel due to the danger from the heavy vehicles, limited space, and potential exposure to hazardous materials being moved or stored.

The military guidance is from DESIGN: COVERED STORAGE UFC 4-442-01N section 2.4.4 Parking. Provide parking space for all facility employees within walking distance of the facility entrance. Parking areas shall be separated from truck docks and other activity areas by fences. Site security shall be enforced by separating the storage facility from the remainder of the activity and further isolating parking from receiving and shipping functions. Refer to DOD.4270.1-M for parking requirements.

This guidance is rather vague but indicates that every employee in the area should be provided a space. Available parking is tight and forces many people to park in loading areas.

Montgomery County provides the following zoning guidance - Industrial, manufacturing establishment or warehouse. One and one-half parking space for each 1,000 square feet of total floor area and sufficient area to provide for loading and unloading of trucks. NNMC has the following warehouses.

Table 10 - Warehouses

Building Number	Area (Sq. Ft.)
13	9,077
143	1,848
152	4,000
203	4,000
149	4,040
80	1,064
256	1,575
242	1,681
225	4,040
148	4,040
147	4,000
239	4,000
153	4,000
Total	47,365
Calculated Spaces	71

OFFICE SPACE

NNMC has several tenants that occupy administrative spaces. In addition, some NNMC missions are beyond what would be normal for a typical hospital. These departments are managing multiple clinics as well as world-wide military records resulting in far larger numbers of administrative staff in some departments than would be normal. The Transportation Manager should investigate what was used to determine the UFC and apply the office space criteria to those functions that fall outside of the norm. No attempt was made to conduct this analysis at this time. As virtually all functions of the tenants are inherently medical related it was not felt that this would make much difference at this time. Depending on the ultimate relative sizes of these functions the Transportation Manager should try to track this information.

For calculation purposes UFC 3-610-01N ADMINISTRATIVE FACILITIES provides 0.7 spaces per employee.

Montgomery County uses the following for: Office, general office, and professional buildings or similar uses. Parking shall be provided in accordance with the parking requirements for office developments contained in Section 59-E-3.2. The base requirements may be reduced in accordance with the credit provision of Section 59-E-3.3. The calculation of building square footage is based on the sum of the gross areas of the several floors of the building, measured from the exterior faces to the exterior walls or from the center line of party walls, which area shall include cellars or basements but shall not include floor area used for off-street parking.

Summary

The purpose of this Appendix is to demonstrate how NNMC determined its current and future parking needs. The methodologies identified in the proceeding sections are summarized in *Table 11 Summary of Parking Allowances* and more detailed calculations are found in *Table 12 Calculation of NCPC Desired Parking Allowance*. Information on the sizes of lots and parking structures and how they are intended to be used can be found in *Table 13 - Identification of 2008 Lot Size and Function* and *Table 14 - Identification of 2011 Lot Size and Function*. The locations of large parking areas can be seen in *Figure 1 - NNMC - Future Parking Locations*.

National Naval Medical Center Bethesda

1 NCPC ratio of 1:3 for Staff

Through the comprehensive Master Plan, NNMC will meet the NCPD staff parking ratio of 1:3. The number of future parking spaces is less than allowed by DoD design criteria. Likewise, the parking is less than the Montgomery County zoning requirements.

Table 12 - Calculation of NCPC Desired Parking Allowance

NNMC Bethesda - Determination of Allowable Parking Spaces per the Comprehensive Plan and other Guidance¹

	Current	Future	unit	Projected Population Numbers					Associated Future Parking Numbers					
				Staff	Shift Worker	Visitor	Barracks Lodger	Patient	Staff	Visitor	Barracks Lodger	Patient	Gov. Vehicle	
Total staff				10,613										1:3, per Comprehensive Plan (NCPC),
Staff less staff lodgers-dental-shift workers-resident doctors				9,679	429				3,226					1:3, per Comprehensive Plan (NCPC),
In patient				in staff #				345				345		1 per bed per UFC 4-510-01
Out-P Seeing provider				in staff #				4,267				1,707		0.4 per patient visit per UFC 4-510-01
Other patient visits				in staff #				427				171		0.4 per patient visit per UFC 4-510-01
Dental	86	98	chairs	274								294		3 per dental chair per UFC 4-510-01
Emergency Room	16	32	rooms	in staff #								64		Two per treatment or examination room per AIA Guidelines for design and construction of Hospital and Health Care Facilities
NICoE				in staff #				30				30		UFC 4-510-01 not applicable patient present all day, 1 per patient

NNMC Bethesda - Determination of Allowable Parking Spaces per the Comprehensive Plan and other Guidance¹

	Current	Future	unit	Projected Population Numbers					Associated Future Parking Numbers					
				Staff	Shift Worker	Visitor	Barracks Lodger	Patient	Staff	Visitor	Barracks Lodger	Patient	Gov. Vehicle	
ICHP				in staff #				20				8		0.4 per patient visit per UFC 4-510-01
Campus visitors				in staff #		1,061				796				0.75 per visitor per UFC 4-510-01
NEX Visitor Parking	59,570	150,000	sq ft	in staff #						675				6 per 1,000 sq ft of retail space, retail ~ 75% of gross sq ft. NAVFAC P80
McDonalds/Quik-Mart/NEX Gas Station	10,450	10,450	sq ft	in staff #						28				6 per 1,000 sq ft of retail space, retail ~ 75% of gross sq ft. NAVFAC P80 adjusted to 60% of UFC
Package Store	3,296	3,296	sq ft	in staff #						9				6 per 1,000 sq ft of retail space, retail ~ 75% of gross sq ft. NAVFAC P80 adjusted to 60% of UFC

NNMC Bethesda - Determination of Allowable Parking Spaces per the Comprehensive Plan and other Guidance¹

				unit	Projected Population Numbers						Associated Future Parking Numbers					
					Current	Future	Staff	Shift Worker	Visitor	Barracks Lodger	Patient	Staff	Visitor	Barracks Lodger	Patient	
Child Development Center Visitor Parking						in staff #		468					39			UFC 4-740-14 - 1 spaces per max. staff on duty and 1/12 space per child
Bowling Alley Parking	24	24	lanes			in staff #							24			No UFC, used 1 per lane (Montgomery Co. is 4/lane)
Fitness Center (Pool & racquet ball court)	4,081	5,109	1 court, 6 lanes			in staff #							70			UFC 2-000-05N - 1% of mil strength, 7 per court, 2 per lane
Barracks						in staff #				806						1 per patient, 0.72 per staff lodger per UFC
Volunteers						70							53			0.75 per volunteer (not included in Staff # total) ongoing discussions
Students						1733 in staff #										1/3 per student (included in Staff total) ongoing discussions

NNMC Bethesda - Determination of Allowable Parking Spaces per the Comprehensive Plan and other Guidance¹

	Current	Future	unit	Projected Population Numbers						Associated Future Parking Numbers					
				Staff	Shift Worker	Visitor	Barracks Lodger	Patient	Staff	Visitor	Barracks Lodger	Patient	Gov. Vehicle		
															Need to reserve 0.8 per Resident Doctor (599) because they are a mission critical concern and parking is a program certification requirement. Ongoing discussions. Exact number is subject to change. Ongoing Discussions.
Resident Doctors				749 in staff #						599 included in staff totals					1 per room
Fisher Houses				in staff #		78									1 per room
Navy Lodge				in staff #		286									1 per vehicle per UFC 4-510-01
Government Vehicles plus full time maintenance, facility service, and snow removal vehicles															
Mission Critical Contractor Support						40								132	1 per vehicle

NNMC Bethesda - Determination of Allowable Parking Spaces per the Comprehensive Plan and other Guidance¹

			Projected Population Numbers				Associated Future Parking Numbers					
			Staff	Shift Worker	Visitor	Barracks Lodger	Patient	Staff	Visitor	Barracks Lodger	Patient	Gov. Vehicle
Surge, Reserves mobilized (7.7%)												

¹ Table reflects Allowable parking spaces (not actual spaces), per the Comprehensive Plan and other applicable guidance. Actual spaces will be less than shown in this table (see summary chart).

Future	
Total staff	10,613
- Staff lodgers	483
- Dental	274
- Shift workers	429
+ Shift overlap	322

Future Total Spaces	
- Visitor	8,087
- Barracks Lodger	2,045
- Patient	671
- Government Vehicle	2,777
	132

- Resident doctors	0
- Volunteers	70
Total	9,679

2,462 Total Staff Spaces

Table 13
Identification of 2008 NNNMC Baseline Lot Size and Function

Lot	No. of Spaces	Function	Staff	Patient	Visitor, Retail, Commercial	Barracks Lodger	Gov Vehicle
A (north of B 1)	135	Staff & visitors	0	135	0		
C (southwestern lot by NEX)	286	Retail/commercial & LT Lodging ³	0		227	53	6
D (Lot in center of map wraps around support buildings)	172	Staff & visitors	83	25	30		34
E (NE part of NNNMC by B 141 and drive thru pharmacy)	289	Staff & visitors	219	20	50		
G (northwest corner of NNNMC)	434	Staff & visitors	12	150	146	126	
Q (lot in front of B60&61 west of 11)	111	LT Lodging ¹	0	0	0	111	
H (behind Navy Lodge)							
U lot (between Fisher houses and Navy Lodge)	166	Staff and Transient & LT Lodging ²	55	50	54	6	1
I (southern most lot in center of base)	294	Staff & visitors	25	150	117		2
J (Bates Rd and behind B11))	60	Staff & visitors	55	5	0		
K (on S Palmer, S of AFRRI)	79	Staff & visitors	54	15	10		
L (north of B 3&5)	192	Staff & visitors	62	80	50		
M (lot behind B17)	25	Staff & visitors	5	0	20		
N (W of AFRRI off Stone Lake)	74	Staff & visitors	54	10	10		
P (center of map E of cooling towers)	20	Staff & visitors	20	0	0		
R (under overpass of S Palmer west of AFRRI)	47	Staff & visitors	30	10	7		
S (SE of Package store on Stokes) ⁷	48	Staff & visitors	0	10	38		
T (SW of Package store on Stokes)	32	Staff & visitors	0	10	22		

Lot	No. of Spaces	Function	Staff	Patient	Visitor, Retail, Commercial	Barracks Lodger	Gov Vehicle
Z (W of Bowling alley near I lot)	16	Retail/commercial	0		16		
W (emergency room west of B 9)							
X (east of B 1)	18	Staff & visitors	2	16	0		
Bldg. 60 (basement parking)	102	Staff & visitors	102	0	0		
Bldg. 60 (basement parking)	68	LT lodging	0	0	0	68	
Bldg. 61 (basement parking)	58	LT lodging	0	0	0	58	
Bldg. 54- B-lot, Staff Parking northern garage on E Palmer or Brown)							
Bldg. 55 - V-lot, Patient Parking southern garage on E Palmer or Brown)	765	Staff & visitors	735	0	30		
Bldg. 241 (All parking in warehouse area NW corner)	975	Patient	202	758	0		15
Bldg. 242 small NEX storage lot NW corner)	30	Staff & visitors	25	0	5		
Bldg. 76 (new nursing bldg basement)	7	Staff & visitors	7	0	0		
Stone Lake Rd. East	33	Staff & visitors	28	0	5		
Bldg. 71 (University Garage)	28	Staff & visitors	0	10	18		
Bldg. 74 (north of B 74)	1,188	Staff & visitors	943	50	195		
Bldg. 17 Front	5	Staff & visitors	5	0	0		
Bldg. 50 (loading area east of 50)	34	Staff & visitors	29	5	0		
Bldg. 12 (spaces located behind - south of building 12)	5	LT lodging	0	0	0	5	
Circle 7 (intended for drop offs, north of building 7)	25	Staff & visitors	25	0			
Bldg. 7 (east of staff garage)	16	Staff & visitors	2	14			
AFRRI (lot SE of AFRRI off of S Palmer)	9	Government vehicle only	0	0	0		9
Stone Lake Rd. West (gravel lot N of USU)	29	Staff & visitors	19	0	10		
	65	Staff & visitors	35	15	15		

Lot	No. of Spaces	Function	Staff	Patient	Visitor, Retail, Commercial	Barracks Lodger	Gov Vehicle
Ball field (spaces south of ball field)	32	Staff & visitors	17	0	15		
Fisher house (front)	11	Transient lodging	0	0	11		
Palmer Rd North (street parking south of barracks)	19	Staff & visitors	13	6			
Taylor and Van Rypen (laydown area east of flag housing)6	25	Government vehicle only	0	0	0		25
Sub total	6,083		2,863	1,544	1,278	427	92

Table 14
Identification of 2011 Lot Size and Function

Key	Lot	Function	Number of Parking Spaces					
			Patient	Visitor, Retail, Commercial	Barracks Lodger	Gov Vehicle	Staff	Total
1	C (southwestern lot by NEX)	Retail/commercial & LT Lodging ³	0	12	0	0	0	12
2	D (Lot in center of map wraps around support buildings)	Staff, patient, & visitors	40	30	0	7	72	149
3	E (NE part of NMMC by B 141 and drive thru pharmacy)	Patient & visitors	65	2	0	40	0	107
4	G (northwest corner of NMMC)	Staff & visitors	0	155	237	0	0	392
5	Q (lot in front of B60&61 west of 11)	LT Lodging ¹	0	0	111	0	0	111
6	H (behind Navy Lodge)	Staff and Transient & LT Lodging ²	20	145	0	1	0	166
7	U lot (between Fisher houses and Navy Lodge)	Staff and Transient & LT Lodging ²	0	56	0	0	0	56
8	I (southern most lot in center of base)	Patients & visitors	150	142	0	2	0	294
9	J (Bates Rd and behind B11)	Staff, Patients & visitors	10	15	0	0	24	49
10	K (on S Palmer, S of AFRRI)	Staff, Patients & visitors	15	10	0	0	35	60
11	N (W of AFRRI off Stone Lake)	Staff & visitors	15	10	0	0	49	74
12	P (center of map E of cooling towers)	Staff & visitors	0	0	0	0	20	20
13	R (under overpass of S Palmer west of AFRRI)	Staff, Patients & visitors	10	7	0	0	30	47
14	S (SE of Package store on Stokes) ⁷	Staff & visitors	0	0	0	0	0	0
15	T (SW of Package store on Stokes)	Staff & visitors	0	0	0	0	0	0

Key	Lot	Function	Number of Parking Spaces					
			Patient	Visitor, Retail, Commercial	Barracks Lodger	Gov Vehicle	Staff	Total
16	Z (W of Bowling alley near I lot)	Retail/commercial	0	16	0	0	0	16
17	X (east of B 1)	Staff & visitors	0	0	0	0	0	0
18	Bldg. 60 (basement parking)	LT lodging	0	0	68	0	0	68
19	Bldg. 61 (basement parking)	LT lodging	0	0	58	0	0	58
20	Bldg. 54- B-lot, Staff Parking northern garage on E Palmer or Brown)	Staff & visitors	0	30	0	0	735	765
21	Bldg. 55 - V-lot, Patient Parking southern garage on E Palmer or Brown)	Patient & Visitor	660	300	0	15	0	975
22	Bldg. 241 (All parking in warehouse area NW corner)	Staff & visitors	0	5	0	0	25	30
-	Bldg. 242 small NEX storage lot NW corner)	Staff & visitors	0	0	0	0	7	7
23	Bldg. 76 (new nursing bldg basement)	Staff & visitors	0	5	0	0	28	33
24	Stone Lake Rd. East	Staff & visitors	10	18	0	0	0	28
25	Bldg. 71 (University Garage)	Staff & visitors	50	400	0	0	738	1,188
-	Bldg. 74 (north of B 74)	Staff & visitors	0	0	0	0	5	5
26	Bldg. 17 Front	Staff & visitors	0	0	0	0	0	0
-	Bldg. 50 (loading area east of 50)	LT lodging	0	0	5	0	0	5
-	Bldg. 7 (east of staff garage)	Government vehicle only	0	0	0	9	0	9
27	AFRRI (lot SE of AFRRI off of S Palmer)	Staff & visitors	0	10	0	0	19	29
28	Stone Lake Rd. West (gravel lot N of USU)	Staff, Patients & visitors	15	15	0	0	35	65
29	Ball field (spaces south of ball field)	Staff & visitors	0	15	0	0	17	32
30	Fisher house (front)	Transient lodging	0	11	0	0	0	11
31	Palmer Rd North (street parking south of barracks)	Staff, Patients & visitors	6	0	0	0	13	19

			Number of Parking Spaces					
Key	Lot	Function	Patient	Visitor, Retail, Commercial	Barracks Lodger	Gov Vehicle	Staff	Total
	Taylor and Van Rypen (laydown area east of flag housing)4	Government vehicle only	0	0	0	0	0	0
32								
	Sub total		1,066	1,621	479	74	1,852	5,092
33	Garage 1 Patient	Patient	939	0	0	0	0	939
	Garage 2 Multipurpose garage	Staff & visitors						
34			661	52	0	0	491	1,204
35	Garage 3 Multiuse garage ⁵	Staff & visitors	111	40	168	52	113	484
36	BEQ surface parking	LT lodging	0	0	24	0	0	24
-	Admin Bldg	Staff & visitors	0	0	0	0	6	6
37	NEX Garage	Retail/commercial	0	544	0	6	0	550
	Total spaces		2,777	2,045	671	132	2,462	8,087

1 Reflects increased demand, no offset for 307 people at 0.72 cars/person, numbers taken out of G Lot

to meet unmet demand in current and G lot and the multi-use garage future scenarios

2 Reflects loss of existing space for 200 room Navy lodge expansion and 63 Fisher house expansion, additional spaces subtracted from multi use garage #2

3 Reflects loss of Long Term Resident parking in C lot taking Staff spots, subtracted from multi use garage #2

4 The government vehicles in this lot are assumed to move to the multi-use garage (3)

5 Represents Fitness Center parking requirement

NNMC - Future Parking Locations

